

CLAIMS

What is claimed is:

1. A method for enabling a first plurality of functions via electrical signals comprising:

providing a second plurality of drive circuits for providing the electrical signals, wherein the second plurality is less than the first plurality;

selecting the first plurality of functions such that at least one of the functions can be enabled faster than at least one other function; and

using at least one of the drive circuits to enable both the at least one function and the at least one other function.

2. A method for enabling at least three functions via voltage signals, the method comprising:

providing first and second drive circuits for providing the voltage signals;

selecting the at least three functions such that at least a first function can be enabled faster than a second function; and

using one of the drive circuits to enable both the first and second functions.

3. The method of claim 2 wherein the at least three functions include unlocking a vehicle door, locking a vehicle door and heating a vehicle mirror, wherein the vehicle door may be locked faster than the vehicle mirror can be heated.

4. A driver system for enabling a first plurality of functions comprising:

a second plurality of driver circuits, each operative to generate at an output thereof one of two possible signal polarities depending on a state of the driver circuit; and

a controller operative to recognize requests for enabling at least one of the first plurality of functions and to place the second plurality of driver circuits in states such that the driver circuit outputs will have appropriate signal polarities for enabling the at least one function requested.

5. The system of claim 4 wherein each driver circuit comprises an electromagnetic relay having a coil coupled to the controller and a transfer contact coupled between the driver circuit output and a voltage source.

6. A driver system for actuating a solenoid plunger in first and second directions and for supplying current to a resistive heating element, the system comprising:

a microprocessor-based controller having a first input for receiving a request for actuating the solenoid plunger in a first direction, a second input for receiving a request for actuating the solenoid plunger in a second direction, a third input for receiving a request for supplying current to the resistive heating element, and first and second outputs;

a voltage source having first and second polarities;

first and second relay drivers, each having an output and an actuating coil with a first end coupled to one of the first and second outputs of the controller and a second end coupled to the voltage source and a transfer contact configured to place a voltage of a first polarity on the driver output when the relay driver is actuated and a voltage of a second polarity on the driver output when the relay driver is not actuated;

an actuating coil for the solenoid plunger coupled between the outputs of the first and second relay drivers; and

the resistive heating element coupled between the output of the first relay driver and the second polarity of the voltage source.